

CLAIMS

What is claimed:

1. A stratified air, scavenged two-cycle engine comprising:
a cylinder block having a cylinder bore therein defined by a cylinder sidewall, which has a scavenging port for fuel mixture delivery and an air port for fresh air delivery;
5 a crankcase attached to the cylinder block and having a crank area to which the cylinder bore extends; and
a piston located within the cylinder bore, the piston separating a combustion chamber of the cylinder bore from the crank area and being operably movable between a first position, in closest proximity to the crank area, and a second
10 position;
the air port and the piston being configured such that air may flow from the air port into the combustion chamber of the cylinder when the piston is at the first position.
2. An engine as set forth in claim 1, wherein the air port has an edge distal from the crank area that is contoured such that only a portion of the edge is exposed by the piston when the piston is at the first position.
3. An engine as set forth in claim 2, wherein the edge has a notch.
4. An engine as set forth in claim 2, wherein the edge has a sloped portion.
5. An engine as set forth in claim 2, wherein the edge has a stepped portion.
6. An engine as set forth in claim 2, including a passage for conveying the fuel mixture to the scavenging port from the crank area.

7. An engine as set forth in claim 2, wherein the air port and the piston are configured such that the air port is fluidically connected to the scavenging passages and crank area when the piston is at a location away from the first position.

8. A stratified air scavenged two-cycle engine comprising:
a cylinder block having a cylinder bore therein defined by a cylinder sidewall, which has a scavenging port for fuel mixture delivery and an air port for fresh air delivery;

5 a crankcase attached to the cylinder block and having a crank area to which the cylinder bore extends; and

a piston located within the cylinder bore, the piston separating a combustion chamber of the cylinder bore from the crank area and being operably movable between a first position, in closest proximity to the crank area, and a second
10 position;

wherein the scavenging port and the air port have edges that are selectively revealed upon movement of the piston, and

the air port includes an upper edge which is distally located away from the crank area, the upper edge of the air port is contoured such that only a portion of
15 the upper edge is exposed by the piston when the piston is at the first position.